APPENDIX A

MARKED-UP VERSION OF CLAIMS AS AMENDED BY THIS RESPONSE

1. (Once Amended) A linear electromagnetic machine comprising:

a movable member;

a stationary member defining at least one stationary pole;

a phase winding positioned such that, when current is flowing in the phase winding, the at least one stationary pole is energized; and

a circuit for energizing the phase winding over a plurality of energization cycles to produce a given force tending to cause linear movement of the movable member with respect to the stationary member, the energizing of the phase winding also producing a normal force tending to cause movement of the movable and stationary members in a direction normal to the desired linear movement;

wherein the normal force profile experienced by the at least one stationary pole over a first energization cycle is different from the normal force profile experienced by the at least one [pole] stationary <u>pole</u> over a subsequent energization cycle.

APPENDIX B

MARKED-UP VERSION OF SPECIFICATION PARAGRAPHS AS AMENDED BY THIS RESPONSE

Marked-up version of Instruction 1:

~~In FIG. 9,~~ A notched face in FIG. 9A represents a deep, U-shaped indentation ~~10~~ 20a along the radial center of the pole face ~~20~~ 10, extending from the top 30 of the pole to the bottom 40 of the pole. The top of the pole and the bottom of the pole are differentiated from the leading edges 50 of the pole. The leading edges are the portions of the pole that first come into relation with an opposing pole when the motor is in operation.

In like manner, a notched face in FIG. 9B represents a wide, chamfered indentation 20b in the pole face 10, also centrally located in the pole and extending from the top to the bottom of the pole. Also, a notched face in FIG. 9C represents a shallow indentation 20c in the pole face 10, while a notched face in FIG. 9D represents a raised indentation 20d in the pole face 10. Finally, a notched pole in FIG. 9E represents an offset notch 20e not located on the radial center 30 of the pole 10. For contrast to the notched faces in FIGS. 9A-E, a uniform face 10f is presented in FIG. 9F to illustrate the typically uniform face of a switched reluctance motor pole.

Marked-up version of Instruction 2:

One such alternative embodiment involves the use of closed or "semi-closed" rotor poles that include areas near the pole face of the rotor pole to be modified that have magnetic material removed so as to leave an air gap or a portion of the rotor that includes material that will not conduct magnetic flux. An example of a rotor pole having a closed configuration is provided in FIG. 9G, where a portion of the rotor pole material has been removed ~~at 20~~ to define a bore 20g passing through the rotor pole face 10. The use of a closed rotor pole allows for control of the radial forces established as the closed rotor pole moves towards and into alignment with the stator poles, but does not have the same tendency to produce windage noise as a notched rotor pole.

Marked-up version of Instruction 3:

A still further alternate embodiment involves the utilization of a rotor wherein the length of the rotor poles is different at various points so as to present differing air gaps to the stator poles associated with an energized phase winding. One exemplary rotor pole having such a construction is shown in FIG. 9H. The pole face 10 is provided with a step so that the length of the rotor poles is different at portion ~~10 and~~ 20h. As a result, differing air gaps are presented to the stator poles associated with an energized phase winding as the rotor poles pass in relation.

FIG. 9I shows two embodiments of notches that pass through the laminations that construct the pole without altering the actual face of the pole. An axial bore 20i passes from the top of the pole 30, through the myriad of laminations that make the pole, and to the bottom of the pole 40. The axial bore may have a variety of shapes in order to [effect] affect the normal force profile associated with the pole. Bore 20i is a cylindrical bore, while bore 21 also in FIG. 9I is a half-cylindrical bore.

FIG. 9J shows a notch in the pole face 10 having a narrow opening 20j in the pole face. The notch also has a wider bore section 22 that passes through the laminations of the pole from the top 30 to the bottom 40 of the pole.

FIG. 9K shows another embodiment of a notch 20k in a pole face 10 according to the present invention. The notch runs along the width of the pole face from a leading edge 50 to a trailing edge 50', instead of those described above that pass from the top 30 to the bottom 40 of the pole.

Marked-up version of Instruction 4:

FIG. 20 shows an additional embodiment of a 3-phase, 6/4-reluctance machine. The machine has three radially opposed stator poles A, B, and C, each having a phase. The rotor has two radially opposed pairs of rotor poles 1-1' and 2-2'. Three tables are presented below to illustrate various configurations that can be made with the present embodiment and others discussed herein. The present embodiment and Tables illustrate the interrelation of rotor pole to stator pole ~~ration~~ ratio and number of phases in regards to the distribution of deflections around the stator with time or location.